



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,887	04/16/2004	Klemens Kohlgrueber	PO8141/LcA 35,579	8603

157 7590 12/23/2005

BAYER MATERIAL SCIENCE LLC
100 BAYER ROAD
PITTSBURGH, PA 15205

EXAMINER

BOYKIN, TERRESSA M

ART UNIT	PAPER NUMBER
----------	--------------

1711

DATE MAILED: 12/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/825,887	Applicant(s) KOHLEGRUEBER ET AL.	
	Examiner Terressa M. Boykin	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5,9-13 and 15-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5,9-13 and 15-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1711

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13, 15, 16, are rejected under 35 U.S.C. 103(a) as being unpatentable over USP 6344507 see cols. 1-5, examples and claim 6.

USP 6344507 discloses antistatic agents which are may be incorporated into the polycarbonate resin, which it is desired to render antistatic. The antistatic can be incorporated into the resin by generally conventional methods, typically by including the antistatic as a component in formulating the resin before molding or casting and in particular by melt blending techniques, for example using *Banbury mixers* or extruders. For example, the antistatic agent additive can be melt blended into the polymer resin in an extruder, with the additive being fed into the extruder premixed with the polycarbonate resin e.g. by dry blending polycarbonate resin granules with powdered additive or by mixing granules of polycarbonate resin and of additive masterbatch in a similar polymer, or *by being fed as a side stream into the extruder as the molten polycarbonate resin proceeds through it*. The blended material can be granulated e.g. by extrusion and cutting e.g. for subsequent manufacture into desired forms such as

Art Unit: 1711

sheet e.g. windows, and molded products, including optical components such as lenses. Masterbatches of the antistatic agent in polycarbonate resin can be made as granules by such methods and the polycarbonate polymer resin base of the masterbatch need not be the same as the main polycarbonate polymer resin of the product formulation (but in practice will be miscible with it).

When the polycarbonate resins formulated including an antistatic agent according to the invention are used in making molded products e.g. sheet products (including lenses and similar optical components), the antistatic agent will typically be used to inhibit or prevent surface dust pick up and this can be a very useful feature of such products. Even where antistatic performance is not particularly important in, particularly molded, end products, intermediate processing may be simplified if the polycarbonate resin is treated according to the invention.

The reference discloses a polymer melt prepared from the same components as claimed by applicants except for the particular use of a static mixer for mixing the components. However, it is clear for the specification of the reference that the moieties are mixed in view of the use of *Banbury mixers, which may be used for heavily-compounded blends such as rubbers, compounded PE etc, wherein Static mixers wherein less viscous fluids are made.*

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a static mixer in lieu of another mixer as disclosed since, *the ordinary skilled artisan would as a matter of routine experimentation to ascertain the best compromise between which mixing apparatus to employ.*

Claims 5, 9, 10-11, 12, 13, 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over USP 6344507 in view of USP 4093188.

With regard to claims 9, 10, 11, 12 the reference discloses the continuous process for mixing a thermoplastic polycarbonate melt except for the use of the particular apparatus.

However, note **USP 4093188** discloses that two or more fluids, particularly viscous fluids, may be thoroughly blended and homogenized with a static mixer and method using a mixing element which comprises two or more banks of stationary baffles arranged around an axis parallel to the overall direction of flow of the fluids to be mixed. The baffles in each bank of the element are inclined at an angle to the overall flow axis and at an angle to the baffles of adjacent banks so that fluid streams are guided through windows or apertures formed by abutting baffles along the interface between adjacent banks. Each bank includes a plurality of substantially parallel baffle plates spaced along the axis, and at least one of the banks has a second set of substantially parallel baffle plates spaced along the axis and alternating with the first set of baffles. The baffles of the second set are inclined to the axis at an angle different from the inclination of the baffles of the first set so that alternately converging and diverging passages are formed between the baffles. By this means, fluid streams are successively and repeatedly subdivided, converged and redivided into a plurality of substreams in sinuous, non-parallel spiraling paths to effect a more thorough and efficient blending of the fluids than previously possible.

Thus, as noted above, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a static mixer in lieu of another mixer

as disclosed since , *the ordinary skilled artisan would as a matter of routine experimentation to ascertain the best compromise between which mixing apparatus to employ.*

Consequently, the claimed invention cannot be deemed as unobvious and accordingly is unpatentable.

Correspondence

Please note that the cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site (www.uspto.gov <<http://www.uspto.gov>>), from the Office of Public Records and from commercial sources. Applicants may be referred to the Electronic Business Center (EBC) at <<http://www.uspto.gov/ebc/index.html>> or 1-866-217-9197.

Correspondence

Please note that the cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site (www.uspto.gov <<http://www.uspto.gov>>), from the Office of Public Records and from commercial sources. Applicants may be referred to the Electronic Business Center (EBC) at <<http://www.uspto.gov/ebc/index.html>> or 1-866-217-9197.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Terressa Boykin whose telephone number is 571 272-1069. The examiner can normally be reached on Monday through Friday from 6:30am to 3:00pm.

Art Unit: 1711

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. The general information number for listings of personnel is (571-272-1700).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tmb


Examiner Terressa Boykin
Primary Examiner
Art Unit 1711